

ENVIRON

July 20, 1989

Mr. Frank D'Ascensio
Passaic Valley Sewer Commission
600 Wilson Avenue
Newark, NJ 07105

Re: Fine Organics Corporation, Lodi, New Jersey
ECRA Case #86009, PVSC Sewer Connection Permit
#17405042

Dear Mr. D'Ascensio:

The purpose of this letter is to provide you with an update of recent developments concerning investigations and remedial actions at the above-referenced facility and to initiate discussions concerning implementation of the proposed site remediation plan. In response to your request during our September 30, 1987 meeting in Newark, we have been providing you with progress reports, summary reports, and analytical results on a periodic basis to keep you informed of site activities. In accordance with ECRA requirements, we recently developed a site remediation plan that was submitted to the New Jersey Department of Environmental Protection (NJDEP) on March 1, 1989 for review and comment.

On June 6th, a meeting was held with the NJDEP at the facility to discuss the proposed Remediation Plan. A key component of the Remediation Plan involves collection and disposal of ground water containing Volatile Organic Compounds (VOCs). During our meeting, NJDEP agreed that the preferred method of ground water disposal is discharge to the Passaic Valley Sewer Commission (PVSC) industrial sewer system. Toward this end, the NJDEP has requested that we immediately initiate discussions with the PVSC to establish the specific conditions under which such a discharge would be authorized. The purpose of this letter is to provide you with background information concerning the characteristics of the proposed discharge and to request a meeting at your earliest convenience to discuss this matter further. In addition, we are providing a description of proposed modifications to the onsite industrial and storm sewer systems (see Attachment A).

SDMS Document



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ENVIRON · Counsel in Health and Environmental Science Corporation

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Description of Ground Water Recovery System

As part of the Remediation Plan for the site, it is proposed that a ground water containment/collection system will be designed and constructed. Separate systems are proposed for collection and removal of ground water from the upper water table zone and the lower artesian zone that are present at the site. Figure 1 illustrates some of the containment/collection systems that were evaluated for the upper aquifer. Based on feasibility study results, it is proposed that a french drain system (without a slurry wall) will be constructed in the southwestern area of the site as illustrated in Figure 1. A series of shallow extraction wells will be constructed in the southeastern portion of the site (instead of the french drain system shown in Figure 1). Eight extraction wells will be constructed at the locations shown in Figure 2 to collect ground water from the deeper artesian zone. These systems are intended to capture all ground water migrating across the site. The extent of ground water treatment that would be provided prior to discharge if any, would be dependent upon your requirements.

Ground Water Recovery Rates and Ground Water Characteristics

Based on our ground water modeling studies of the site, it is estimated that the rate of discharge from the ground water recovery system will be approximately 6,300 gallons per day. This rate of discharge would occur 24 hours per day, every day of the year (except during occasional periods when the system is out of service), until NJDEP agrees that no further action is necessary.

The characteristics of ground water in the upper and lower aquifers have been determined through recent site investigations. Table 1 presents the anticipated concentrations of various parameters following start-up of the proposed ground water collection system. It is expected that these concentrations will gradually decrease over time as site remediation activities proceed.

Status of Current Discharge Permit

The facility presently has a permit (PVSC Sewer Connection Permit #17405042) to discharge to the industrial sewer, which is effective from May 27, 1986 through May 27, 1991. Under the terms of this existing permit, Fine Organics Corporation is required to report the volume discharged from Outlet No. 1 (Outlet No. 17405041-37340-0171) on a quarterly basis. No limits on discharge rates presently exist. Based on self monitoring reports for the time period extending from January 1, 1986 through June 26, 1987, the average annual volume of wastewater

discharged from Outfall No. 1 is approximately 3,243,800 gallons (see Table 2). Considering the capacity of the PVSC sewerage system (approximately 330 million gallons per day), we believe that the proposed discharge of approximately 4.4 gallons of ground water per minute, which represents a contribution of less than 0.02% of the average wastewater flow to the treatment plant, should not represent a significant additional hydraulic load on either the PVSC wastewater collection or treatment systems.

Under the existing PVSC discharge permit, Fine Organics Corporation is required to report biochemical oxygen demand and total suspended solids concentrations on a quarterly basis for industrial wastewater discharges from Outlet No. 1. No specific discharge limitations presently exist. We propose to discharge ground water along with process wastewater currently being generated at the facility through a new outfall location (see Attachment A for proposed sewer modifications). The preferred method of disposal would be a direct discharge, without pretreatment.

Regulations that limit discharges into the PVSC sewer system include the federal general and categorical pretreatment standards, New Jersey Pretreatment Regulations, and rules and regulations set forth by the PVSC ("Rules and Regulations Concerning Discharges to the Passaic Valley Sewerage Commissioners Treatment Works"). Based on conversations with State agency officials, it appears that State requirements are implemented by the local agency (e.g., PVSC), provided that the local agency administers a state-approved program. The following discussion presents our perspective on federal and local regulations relative to the proposed discharge of ground water to the PVSC sewer system.

Under the conditions of the facility's existing PVSC Sewer Connection Permit, it appears that the only restrictions that could potentially apply to this type of discharge are the prohibitions concerning discharges of "noxious material". Noxious material is defined as "noxious or malodorous solids, liquids or gases, which, either singly or by interaction with other wastes, are capable of creating a public nuisance or hazard to life, or are or may be sufficient to prevent entry into a sewer for its maintenance and repair". Since most of the organic chemicals present in site ground water are volatile, they would not likely persist within the sewer system for very long. Furthermore, they are present in trace concentrations that should not likely present any significant hazards.

In our view, the proposed ground water discharge does not contain any of the other wastes described under the General Prohibitions section of the permit, and should not cause interference with

Publicly-owned Treatment Works (POTW) operations, or cause the POTW to violate its NPDES permit, applicable receiving water standards, or its permit regulating sludge which is produced during treatment.

Under Section 312 of the "Rules and Regulations Concerning Discharges to the Passaic Valley Sewerage Commissioners Treatment Works", a list of prohibited industrial wastes is presented. Of the wastes listed in this section, the proposed ground water discharge (although not an industrial waste), could potentially be characterized as a "noxious material" as already described above, or as "ultra hazardous toxics". It is our understanding that PVSC interprets "ultra hazardous toxics" to include substances such as PCBs and DDT, which can no longer be produced in the U.S., and that VOCs are not included in this category. It is also our understanding that no specific regulations currently exist that prohibit the discharge of wastes containing volatile organic compounds (VOCs), but that this situation may change in the future.

Considering the relatively low volume of ground water that is proposed to be discharged, as well as its characteristics, it appears that no specific prohibitions contained within the general and categorical pretreatment standards exist that would prevent the discharge of this ground water to the PVSC sewer system. Based on a letter from James R. Higdon, Director of Operations at Fine Organics Corporation to you on March 9, 1988, it is Fine Organics Corporation's position that the facility operates under SIC Code 2842 and that categorical pretreatment standards for the Organic Chemicals and Plastics and Synthetic Fibers (OCPSF) category do not apply. Based on a letter received by Fine Organics Corporation on April 5, 1988, EPA concurred with this position (See Attachment B). Therefore, it appears that no federal OCPSF requirements exist that are more restrictive than PVSC rules and regulations. In addition, we have not been able to identify state regulations that are more restrictive.

Based on the information presented herein and the above considerations, we request that PVSC provide a determination concerning the conditions under which the proposed ground water discharge would be allowed. As noted above, the preferred method of disposal is directly to the PVSC sewer system, without pretreatment. If pretreatment is required, however, we request that PVSC provide information concerning specific discharge limitations that will apply. If pretreatment is required, this information will be needed to design an appropriate ground water treatment system.

As indicated above, all of the parties involved believe that the preferred alternative for ground water disposal is to the PVSC

Mr. D'Ascensio

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sewer system. We are interested in scheduling a meeting to discuss this matter at your earliest convenience and will be contacting you in the near future to make arrangements. In the interim, please do not hesitate to contact us if you have any questions or require additional information to evaluate this issue.

Very truly yours,



John H. Schroeter, P.E.
Project Manager

JS/kp

cc: S. Mayberry, NJDEP

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TABLE 1
Anticipated Initial Ground Water Concentrations*
(in mg/l)

<u>Parameter</u>	<u>Concentration</u>
Benzene	0.500
Chlorobenzene	13
Chloroethane	3.9
Chloroform	0.20
1,1-Dichloroethane	0.20
1,2-Dichloroethane	16
Trans-1-2-dichloroethylene	2.6
Ethylbenzene	0.22
Methylene chloride	11
Tetrachloroethylene	2.4
1,1,1-Trichloroethane	0.50
1,1,2-Trichloroethane	0.22
Trichloroethylene	1.0
Toluene	2.3
Vinyl chloride	0.56
1,1,2,2-Tetrachloroethane	0.20
Carbon tetrachloride	0.20
1,1-Dichloroethene	0.20
2,4-Dimethylphenol	0.03
2-Chlorophenol	0.02
Phenol	0.04
1,2-Dichlorobenzene	0.10
1,3-Dichlorobenzene	0.01
1,4-Dichlorobenzene	0.04
Bis(2-ethylhexyl) phthalate	0.053
Diethyl phthalate	0.007
Dimethyl phthalate	0.01
Naphthalene	0.007

* These concentrations are expected to decrease over time.

TABLE 2
Current Rate of Industrial Process Wastewater
Discharge at the Fine Organic Chemicals Facility

Time Period		Volume Discharge (Gallons)
<u>From</u>	<u>To</u>	
01/01/86	03/31/86	917,407
04/01/86	06/30/86	964,891
07/01/86	09/30/86	802,015
10/01/86	12/31/86	689,723
01/01/87	03/27/87	629,273
03/28/87	06/26/87	862,400

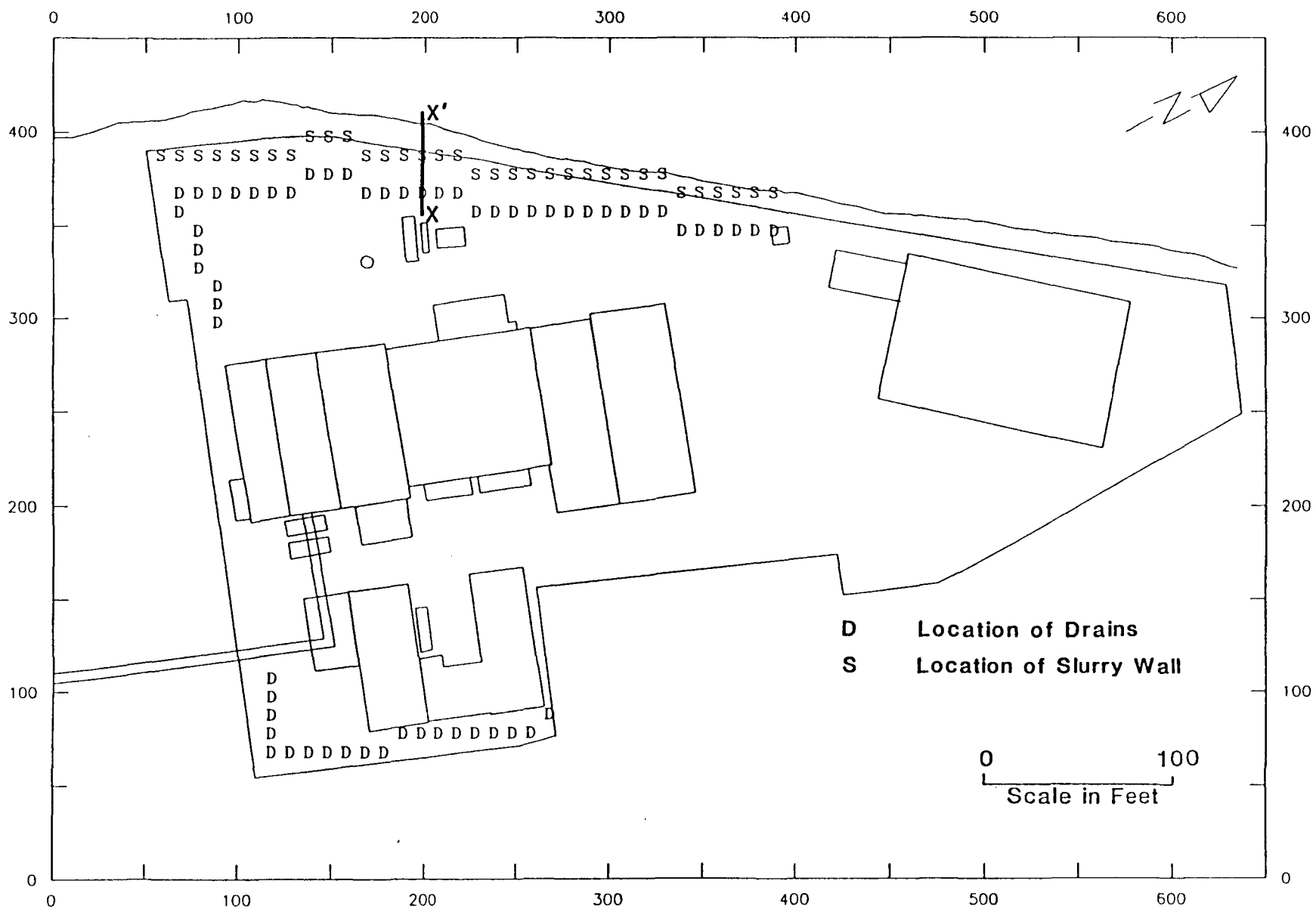
Average volume of wastewater discharged
per Quarter = 810,952 Gallons

Average annual volume of wastewater
discharged = 3,243,800 Gallons

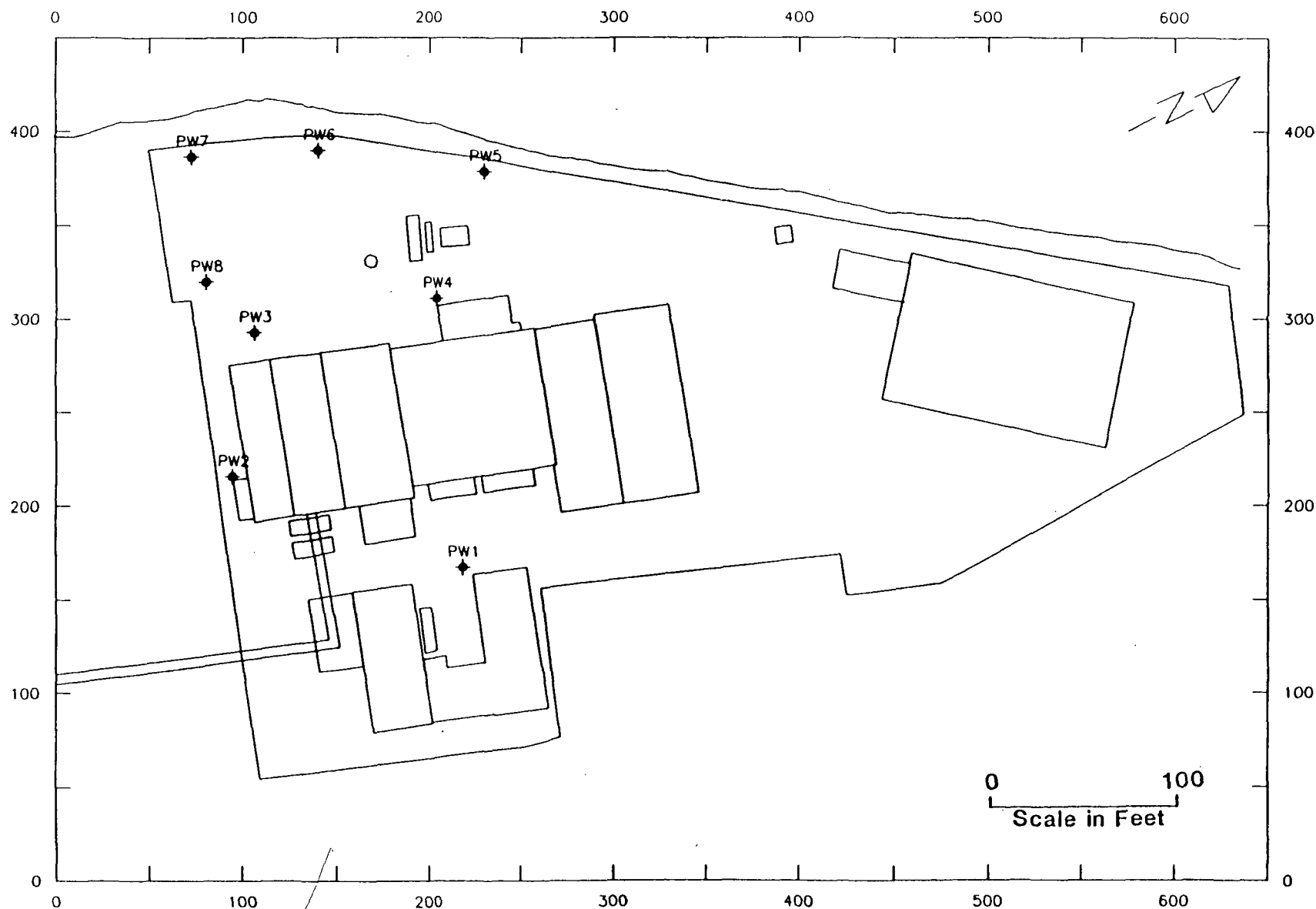
Daily average flow rate = 12,476 GPD*

* Based on 260 days of operation per year.

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ATTACHMENT A
INDUSTRIAL AND STORM SEWER SYSTEM MODIFICATIONS

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INDUSTRIAL AND STORM SEWER SYSTEM MODIFICATIONS

In order to address issues that exist concerning the storm and industrial sewer systems that are located onsite, certain collection system modifications are proposed (See Plate 3). Although these issues have been documented in previous correspondence to the PVSC, this section summarizes our current level of understanding of conditions that exist within these sewer systems, as well as a description of the proposed modifications.

The prior investigations of the industrial sewer and stormwater collection systems at the facility indicate that wastewater from the process areas discharges to an industrial sewer which traverses the rear of the property. The primary discharges are through the permitted PVSC outfall into manhole M-3, however, other drain connections to the sewer system have also been documented. In addition, dye studies of the exterior drain systems, in particular drains in the alleyway to the east of Building I, indicate that certain drains may not be connected to the industrial sewer system. The point of outfall of these drains has not been documented by the various studies conducted at the site.

Sediments have been observed to have accumulated in the main industrial sewer between manholes M-8 and M-1. Chemical tests of these sediments indicate that TPHC and PCBs are present. In addition, oil has been observed to accumulate in manhole M-1 and catch basin CB-8 at a slow, but continuous rate. An interim oil collection system has been provided in these two structures to prevent any release of oil through the sewer system offsite.

As discussed above, certain collection system modifications are proposed to address the onsite issues that exist. These modifications are intended to 1) reduce the potential for any continuing release of chemicals from storage and process areas into soil, 2) ensure the integrity of the internal floor drain system in chemical processing areas and the outfall to the industrial sewer, 3) reduce the potential for the inflow of PCB-contaminated oil into the sewer system and the possible release offsite to the POTW, and 4) remove accumulated PCB-contaminated sediments in the sewer system to reduce their potential for impacting soil and ground water at the Site. The specific corrective actions that are proposed to be undertaken to achieve these objectives, and which are illustrated in Plate 3, are as follows:

- The existing industrial sewer between manhole M-1 and manhole M-8 will be abandoned in-place. All connecting drain outfalls to chemical process areas and warehouses

will also be abandoned. The segment of the industrial sewer between Manhole M-1 and the downgradient property boundary adjoining Molnar Road will be removed. Manholes M-1 and M-8 will be structurally modified to close the former sewer connections. (We understand that approval from the PVSC may be necessary prior to the proposed abandonment and would appreciate identification of specific PVSC requirements). Specific design drawings for these modifications will be developed following our discussions.

- All accumulated sediments in the industrial sewer system will be removed and disposed in accordance with applicable regulations. The abandoned sewer will continue to be operated as a ground water drain to collect any infiltration along the sewer line; and, any accumulated oil or ground water will be pumped and removed on a regular basis.
- A new sewer manhole will be constructed on the existing industrial sewer adjacent to Molnar Road. This manhole will serve as the point of outfall for all process wastewater and stormwater from chemical storage and processing areas at the Facility. A catch basin and connecting pipe will be constructed in the rear yard adjacent to the existing stormwater catch basin for collection of stormwater runoff. A second gravity sewer will be constructed along Molnar Road from the new sewer outfall to the alleyway between Building I and the Administration Building, to provide an outfall to a new system of catch basins and yard drains within the alleyway. All new sewer and stormwater systems will be constructed of chemical-resistant, water-tight pipe and materials.
- Within the alleyway between the Administration Building and Building I, the system of catch basins and strip drains will be removed and reconstructed to provide more secure collection of stormwater and chemicals. These catch basins will be connected by a gravity drain to the new sewer outfall. All existing drain connections to adjoining buildings will be abandoned or replaced.
- Within the chemical processing buildings, all collection sumps, floor trenches and below-floor drains will be replaced or modified to ensure water-tightness and chemical integrity. All process wastewater will be directed to a reconstructed wastewater collection sump in Building II, from which wastewater will be pumped through a force main to the new outfall on the industrial sewer system. All existing outfalls and

floor drains, which are not needed as part of a reconstructed internal drainage system, will be closed and abandoned.

The prior chemical testing of water flowing into Manhole M-8 from the northeast from Main Street suggests that this water is stormwater runoff, as was reported to ENVIRON by the plumbing inspector for the Borough of Lodi. However, prior to the proposed abandonment of the industrial sewer, which would permanently direct this water into the storm drain system which discharges into Saddle Brook, an additional sample will be collected from this pipe inflow for priority pollutant, biochemical oxygen demand, and coliform analysis to ensure that this water is not, in fact, industrial or domestic wastewater.

ATTACHMENT B
EPA LETTER CONCERNING APPLICABILITY OF
OCPSF CATEGORICAL PRETREATMENT STANDARDS
TO FINE ORGANICS CORPORATION OPERATIONS

**RECEIVED**

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II
26 FEDERAL PLAZA
NEW YORK, NEW YORK 10278

Mr. James R. Higdon
Director of Operations
Fine Organics Corporation
205 Main Street
P.O. Box 687
Lodi, New Jersey 07644-0687

Dear Mr. Higdon:

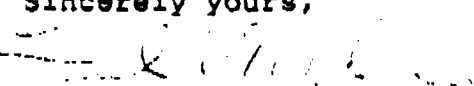
This is in response to your letter of January 25, 1988, in which you requested a categorical determination for Fine Organics Corporation's facility located at 205 Main Street, Lodi, New Jersey, concerning the Organic Chemicals and Plastics and Synthetic Fibers (OCPSF) Category Effluent Limitation Guidelines.

Based on the information provided in your letter, and your telephone conversation with Mr. Brian Kavanah of the Permits Management Section on March 23, 1988, the U.S. Environmental Protection Agency (EPA) has determined that the above referenced facility is not subject to the OCPSF regulations.

The OCPSF regulations do not apply to facilities such as yours, which operate under Standard Industrial Classification (SIC) 2842 that blend, package, and store organic solvents, but do not manufacture products through organic processes.

Should there be any questions, please call Mr. Brian Kavanah at (212) 264-0549.

Sincerely yours,


Richard L. Caspe, P.E.
Director
Water Management Division

cc: Mr. Carmine Perrapato
Passaic Valley Sewerage Commissioners
Arnold Schiffman, NJDEP